

SEQUENCE LISTING

<110> Thomas, Stephen G
Hedden, Peter
Phillips, Andrew L

<120> Gibberellin 2-Oxidase

<130> 0623.0970000

<140> To Be Assigned

<141> Herewith

<150> PCT/GB99/01857

<151> 1999-06-11

<150> GB 9812821.8

<151> 1998-06-12

<150> GB 9815404.0

<151> 1998-07-15

<160> 16

<170> PatentIn Ver. 2.1

<210> 1

<211> 1318

<212> DNA

<213> *Phaseolus coccineus*

<400> 1

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<212> PRT

<213> *Phaseolus coccineus*

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35 40 45

Gly Phe Phe Lys Leu Val Asn His Gly Val Pro Leu Glu Leu Met Ala
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Asn Leu Glu Asn Glu Ala Leu Arg Phe Phe Lys Lys Ser Gln Ser Glu
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Lys Asp Arg Ala Gly Pro Pro Asp Pro Phe Gly Tyr Gly Ser Lys Arg
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Ile Gly Pro Asn Gly Asp Val Gly Trp Val Glu Tyr Leu Leu Leu Asn
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Thr Asn Pro Asp Val Ile Ser Pro Lys Ser Leu Cys Ile Phe Arg Glu
115 120 125

Asn Pro His His Phe Arg Ala Val Val Glu Asn Tyr Ile Thr Ala Val
130 135 140

Lys Asn Met Cys Tyr Ala Val Leu Glu Leu Met Ala Glu Gly Leu Gly
145 150 155 160

Ile Arg Gln Arg Asn Thr Leu Ser Arg Leu Leu Lys Asp Glu Lys Ser
165 170 175

Asp Ser Cys Phe Arg Leu Asn His Tyr Pro Pro Cys Pro Glu Val Gln
180 185 190

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195 200 205

Ile Ile Ser Val Leu Arg Ser Asn Ser Thr Ser Gly Leu Gln Ile Cys
210 215 220

Leu Thr Asp Gly Thr Trp Val Ser Val Pro Pro Asp Gln Thr Ser Phe
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Phe Ile Asn Val Gly Asp Ala Leu Gln Val Met Thr Asn Gly Arg Phe
245 250 255

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260 265 270

Ser Met Ile Tyr Phe Gly Gly Pro Ala Leu Ser Glu Asn Ile Ala Pro
275 280 285

Leu Pro Ser Val Met Leu Lys Gly Glu Glu Cys Leu Tyr Lys Glu Phe
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<213> Artificial Sequence

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<223> Description of Artificial Sequence: Probe

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<212> DNA

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<221> misc_feature

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<223> unidentified residue

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<211> 329

<212> PRT

<213> Arabidopsis thaliana

<400> 6

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Pro	Ser 275	Leu	Thr	Gln	Arg	Ile	Ala 280	Pro	Leu	Thr	Cys	Leu 285	Ile	Asp	Asn
Glu	Asp 290	Glu	Arg	Leu	Tyr	Glu 295	Glu	Phe	Thr	Trp	Ser 300	Glu	Tyr	Lys	Asn
Ser 305	Thr	Tyr	Asn	Ser	Arg 310	Leu	Ser	Asp	Asn	Arg 315	Leu	Gln	Gln	Phe	Glu 320
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 35 40 45
 Cys Glu Glu Phe Gly Phe Phe Lys Val Val Asn His Gly Val Arg Pro
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 65 70 75 80
 Pro Gln Ser Leu Lys Asn Arg Ala Gly Pro Pro Glu Pro Tyr Gly Tyr
 85 90 95
 Gly Asn Lys Arg Ile Gly Pro Asn Gly Asp Val Gly Trp Ile Glu Tyr
 100 105 110
 Leu Leu Leu Asn Ala Asn Pro Gln Leu Ser Ser Pro Lys Thr Ser Ala
 115 120 125
 Val Phe Arg Gln Thr Pro Gln Ile Phe Arg Glu Ser Val Glu Glu Tyr
 130 135 140
 Met Lys Glu Ile Lys Glu Val Ser Tyr Lys Val Leu Glu Met Val Ala
 145 150 155 160
 Glu Glu Leu Gly Ile Glu Pro Arg Asp Thr Leu Ser Lys Met Leu Arg
 165 170 175

Asp Glu Lys Ser Asp Ser Cys Leu Arg Leu Asn His Tyr Pro Ala Ala
180 185 190

Glu Glu Glu Ala Glu Lys Met Val Lys Val Gly Phe Gly Glu His Thr
195 200 205

Asp Pro Gln Ile Ile Ser Val Leu Arg Ser Asn Asn Thr Ala Gly Leu
210 215 220

Gln Ile Cys Val Lys Asp Gly Ser Trp Val Ala Val Pro Pro Asp His
225 230 235 240

Ser Ser Phe Phe Ile Asn Val Gly Asp Ala Leu Gln Val Met Thr Asn
245 250 255

Gly Arg Phe Lys Ser Val Lys His Arg Val Leu Ala Asp Thr Arg Arg
260 265 270

Ser Arg Ile Ser Met Ile Tyr Phe Gly Gly Pro Pro Leu Ser Gln Lys
275 280 285

Ile Ala Pro Leu Pro Cys Leu Val Pro Glu Gln Asp Asp Trp Leu Tyr
290 295 300

Lys Glu Phe Thr Trp Ser Gln Tyr Lys Ser Ser Ala Tyr Lys Ser Lys
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<212> DNA
<213> Arabidopsis thaliana

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<212> PRT
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 35 40 45
 Gly Phe Phe Lys Val Ile Asn His Gly Val Arg Pro Asp Leu Leu Thr
 50 55 60
 Gln Leu Glu Gln Glu Ala Ile Asn Phe Phe Ala Leu His His Ser Leu
 65 70 75 80
 Lys Asp Lys Ala Gly Pro Pro Asp Pro Phe Gly Tyr Gly Thr Lys Arg
 85 90 95
 Ile Gly Pro Asn Gly Asp Leu Gly Trp Leu Glu Tyr Ile Leu Leu Asn
 100 105 110
 Ala Asn Leu Cys Leu Glu Ser His Lys Thr Thr Ala Ile Phe Arg His
 115 120 125
 Thr Pro Ala Ile Phe Arg Glu Ala Val Glu Glu Tyr Ile Lys Glu Met
 130 135 140
 Lys Arg Met Ser Ser Lys Phe Leu Glu Met Val Glu Glu Glu Leu Lys
 145 150 155 160
 Ile Glu Pro Lys Glu Lys Leu Ser Arg Leu Val Lys Val Lys Glu Ser
 165 170 175
 Asp Ser Cys Leu Arg Met Asn His Tyr Pro Glu Lys Glu Glu Thr Pro
 180 185 190
 Val Lys Glu Glu Ile Gly Phe Gly Glu His Thr Asp Pro Gln Leu Ile
 195 200 205
 Ser Leu Leu Arg Ser Asn Asp Thr Glu Gly Leu Gln Ile Cys Val Lys
 210 215 220
 Asp Gly Thr Trp Val Asp Val Thr Pro Asp His Ser Ser Phe Phe Val
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 Leu Val Gly Asp Thr Leu Gln Val Met Thr Asn Gly Arg Phe Lys Ser
 245 250 255
 Val Lys His Arg Val Val Thr Asn Thr Lys Arg Ser Arg Ile Ser Met
 260 265 270
 Ile Tyr Phe Ala Gly Pro Pro Leu Ser Glu Lys Ile Ala Pro Leu Ser
 275 280 285
 Cys Leu Val Pro Lys Gln Asp Asp Cys Leu Tyr Asn Glu Phe Thr Trp
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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Primer

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<220>
<223> Description of Artificial Sequence: Primer

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<210> 13
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<223> Description of Artificial Sequence: Primer

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<223> Description of Artificial Sequence: Primer

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